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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/619,764
Filing Date: July 15, 2003
Appellant(s): JUSTICE, KENNETH L.

Robert Vickers
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 2/22/05.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

N/A

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6358076	Haag	3-2002
5439386	Elliis et al.	8-1995
5308259	Liao	5-1994
4090759	Herrmann, Jr.	5-1978

3824526	Glover	7-1974
3680034	Chow et al.	7-1972

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 7,14, 16, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis et al. ("Ellis") and Liao, Haag, and Chow et al. ("Chow"). Regarding claims 1, 21, the admitted prior art ("APA") discloses everything except that the joining cavity does not engage the outer threaded surface of said cable connection sleeve after a majority of said electrical coupling cavity is at least partially telescopically inserted in said cable connection sleeve. Ellis discloses a connector where the locking member 100 engages the outer threaded surface 34 of a cable connection sleeve after the mating members (80, 40) are fully engaged and the connectors (128, 48) are connected. At the time of the invention, it would have been obvious to increase the longitudinal sliding play distance of the coupling sleeve 120 of the admitted prior art such that the sleeve would not engage the outer threaded surface 34 of a cable connection sleeve until after a majority of said

electrical coupling cavity was telescopically inserted in said cable connection sleeve and the connectors (128, 48) were connected. Ellis teaches that this would have been done by increasing the distance between the front stopping flange (88 in Ellis, 70 in the APA) and the rear stop (face 158 in Ellis, face of flange 38 in the APA). The suggestion or motivation for doing so would have been to allow quicker engaging and disengaging of the mating parts as taught in Ellis (see e.g. Ellis abstract, col. 1, lines 49-55) and as is well known in the art.

Regarding the gripping features, the APA shows gripping surfaces 122. Liao (see ribs 21 on ring 20), Haag (see finger tabs 72 on sleeve 54), and Chow (see gripping rings on coupling ring 26) are examples of connectors disclosing a plurality of "nodes" in a star shape to facilitate manual rotation. At the time of the invention, it would have been obvious to modify the APA gripping surface to include various gripping design features including "nodes" in a star shape as taught in Liao, Haag and Chow. The suggestion or motivation for doing so would have been to provide a good grip and facilitate rotation, as taught by Liao (col. 2, lines 40-45), Haag (col. 6, lines 65-67) and Chow and as is well known in the art.

Regarding claims 2, 14, 16, 23, the APA discloses these limitations.

Regarding claims 7, the APA does not disclose that at least one-thread in said joining cavity of said coupling sleeve is spaced from a receiving end of said joining cavity. Ellis discloses that at least one-thread in the joining cavity of the coupling sleeve is spaced from a receiving end of said joining cavity. At the time of the invention, it would have been obvious to modify the APA such that at least one-thread in the

joining cavity of the coupling sleeve would have been spaced from a receiving end of said joining cavity as taught in Ellis. The suggestion or motivation for doing so would have been to prevent damage to the threads and ensure that the threaded mating parts were properly oriented before engaging the mating threads, such motivation being known in the art.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis and Liao, Haag and Chow as discussed above in view of Herrmann, Jr. ("Herrmann"). The APA does not discloses that the receiving end of said joining cavity has a beveled surfaced designed to-receive a front end of said cable connection sleeve. Herrmann discloses that the receiving end of a joining cavity has a beveled surfaced designed to-receive a front end of said cable connection sleeve (see figure 5). At the time of the invention, it would have been obvious to bevel the receiving end of the APA joining cavity. The suggestion or motivation for doing so would have been to facilitate mating of the mating sleeves, as is well known in the art.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Herrmann, Liao, Haag and Chow for the reasons discussed regarding claims 9 and 4.

Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Liao, Haag and Chow as in claim 7 in view of Glover. The APA does not show at least a majority of said electrical coupling cavity extending outwardly from said receiving end of said joining cavity. Glover discloses a majority of an electrical coupling cavity extending outwardly from a receiving end of a joining cavity.

At the time of the invention, it would have been obvious to extend the APA coupling cavity as desired, such as disclosed in Glover. The suggestion or motivation for doing so would have been to allow facilitate mating of the electrical connectors prior to locking the connectors together, as taught in Glover and as is well known in the art.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Liao, Haag, Chow, Herrmann, and Glover for the reasons discussed regarding claims 9 and 11.

Claims 13, 15, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Herrmann, Liao, Haag, Chow and Glover for the reasons discussed regarding claims 9, 10, 11, 14, 16, 18, and 19.

Claims 23-41 and 44-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Herrmann, Liao, Haag, Chow and Glover for the reasons discussed regarding claims 1-21. Regarding claims 44-63, the method of using the devices discussed regarding claims 1-21 would have been obvious at the time of the invention.

(11) Response to Argument

Applicant argues that Ellis is non-analogous art (Brief pages 9, 10, 11, 12, 28, 29, 37, 42, 43, 45, 46,). The examiner disagrees. Ellis is in the field of applicant's endeavor, in particular electrical connectors with threaded locking rings. Ellis is pertinent to the problem with which the inventor is concerned, in particular the time involved to complete the electrical connection. "[T]his procedure usually took several minutes to complete the connection." Specification page 1, line 21. "Once again, this

procedure was time consuming to complete." Specification page 1, line 24. Ellis addresses this particular problem. "Thus, the operation of mating adaptor 8 with chassis mounting portion 6

or disconnecting adaptor 8 from chassis mounting portion 6 may be **accomplished very quickly**." "A unit having a chassis mounting portion 6 may be disconnected from a hardline coaxial cable and a new unit attached **while minimizing the actual amount disconnect time**." Ellis, col. 6, line 64- col. 7, line 6.

Applicant argues that Ellis has nothing to do with welding. Brief page 10, first paragraph. Likewis, applicant's invention has nothing to do with welding per se. Applicant's invention has to do with the electrical connection between a threaded locking ring connector on a cable and the mating threaded connector.

Applicant argues that because Ellis is classified in class 439/322, it is non-analogous art. Brief page 10, par. 3. Classes 439/320-323 all deal with threaded locking ring connectors, which is the particular field of applicant's invention.

Applicant argues that it is unreasonable that one skilled in the art would look into "every type of electric coupler to solve a problem . . . ." Brief page 10, par. 4. The examiner has certainly not suggested such an endeavour. The cited art is limited to cable connectors with threaded locking rings.

Applicant argues that Ellis is for a coaxial cable. Brief page 11, par. 1. Ellis is cited for the teachings regarding the features of the threaded locking ring, which are applicable to various applications. Ellis is not cited for the features or uses of the cable.

Applicant argues about the properties of welding cables. Brief page 11, par. 2. Ellis is not cited for teaching anything about welding cables. Ellis is cited for the teachings regarding the features of the threaded locking ring, which are applicable to various applications. Ellis is not cited for the features or uses of the cable.

Regarding Liao and Chow, applicant argues that these references are likewise non-analogous art. Brief pages 12-15, 42, . Liao, Chow, and Haag are all cited for teaching gripping nodes and for teaching the proposition that the claimed gripping nodes are well known in the art. The examiner submits that one skilled in the art would recognize that the problem of achieving a good manual grip on a threaded locking ring is certainly not unique to welding connectors. The ubiquity of gripping features on threaded locking ring connectors in general is evidence enough that the problem is well recognized in the art of threaded locking ring connectors.

Regarding Hermann and Glover, applicant argues that these references are likewise non-analogous art. Brief pages 12-17, 39, 40, 41, 42, . The examiner's response is the same as noted above, the pertinent art relates to threaded locking ring connectors, not the art of welding.

Regarding applicant's arguments on pages 17-23 first paragraph, the examiner is not sure what applicant is arguing or if applicant is merely providing background information. The examiner has no comment on these arguments.

Applicant argues that Ellis does not show various features. (brief pages 23, 24, 25, 38,). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections

are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Ellis is not cited for teaching a welder coupling or welding housing or gripping nodes.

Applicant argues that Ellis does not disclose, teach or suggest a joining cavity that is designed to at least partially engage an outer threaded surface of a cable connection sleeve after a majority of the electrical coupling cavity is telescopically inserted in the cable connection sleeve. (brief page 24, end of first paragraph) Applicant is mistaken, see figure 7A and Col. 6 in Ellis.

Applicant argues that there is no indication in the prior art that the proposed modification would result in any type of advantage. The examiner disagrees, Ellis goes into great detail explaining that the Ellis engaging member 40 is inserted into the bore 82 prior to the locking ring engaging the locking threads, and this allows the mating to be achieved very quickly. Ellis col. 6-7.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (brief pages 25, 26, 29,), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Regarding claim 7 (brief page 30), applicant argues that Ellis does not disclose that at least one thread in the joining cavity of the coupling sleeve is spaced from a receiving end of the joining cavity. The examiner disagrees, see D6 in figure 4 of Ellis.

Regarding claims 18, 19, 20, 42, and 43, (brief pages 30-31, etc.), the examiner is persuaded that the APA does not show the claims anti-rotation member and withdraws the rejection pertaining to those claims. Claims 18, 19, 20, 42, and 43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding Herrmann (brief page 32), Herrmann is relied on for disclosing that the receiving end of a joining cavity has a beveled surfaced designed to-receive a front end of said cable connection sleeve. The suggestion or motivation for such beveling would have been to facilitate mating of the mating sleeves, as is well known in the art.

Regarding Glover (brief page 35), applicant argues that Glover does not disclose the length of the connection cavity. The examiner responds that Glover does show quite plainly the length of the connection cavity, see Glover figure 2. Regarding the motivation for the proposed modification, Ellis as noted above discusses at length the advantage of mating the connectors and subsequently locking the connectors and the examiner maintains that furthermore this advantage is well known in the art.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

ROSS GUSHI
PRIMARY EXAMINER

April 21, 2005

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